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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/067,048

02/04/2002

Pieter Van Dine

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01/19/2005

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EXAMINER

COMAS, YAHVEH

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/067,048 | VAN DINE, PIETER | |
| | Examiner | Art Unit | |
| | Yahveh Comas | 2834 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 11/04/2004 have been fully considered but they are not persuasive.

Argument regarding Cox does not teach or suggest a first or second liquid barrier is not persuasive since the first layer (32 and 46) and second layers (46 and 50) comprise tows of carbon fibers in epoxy resin material. As disclosed by Cox the resin is used for fill the spaces between the fibers inherently making the surface impervious to liquid (column 2 lines 20-24 and 55-68). Therefore the rejection is sustained.

In response to applicant's argument that there is no reasonable expectation of success for the combination of Smith and Cox, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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1. Claims 1-5 and 9-15 rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. 6,150,747 in view of Cox U.S. Patent No. 5,717,263.

Smith discloses a stator, a rotor (10) supported for rotation within the stator (50), and a composite lamina arrangement provided on a surface of at least one motor component selected from the rotor and the stator a composite arrangement but fail to disclose that

- Said composite arrangement is made of a first barrier which is impervious to liquids comprising at least one layer of polymeric resin material containing reinforcing fibers, a strength element surrounding the first liquid barrier, and including at least one layer of polymeric resin material containing an array of continuous high strength, high modulus fibers extending continuously around the motor component and a second liquid barrier which is impervious to liquid surrounding the strength element and comprising at least one polymeric resin material containing reinforcing fibers.

However, Cox discloses a composite rotor which according to his invention may be one of the known composites employed in the manufacture of rotors or known to be suitable therefor having, a first barrier (32 and 46) which is impervious to liquids comprising at least one layer of polymeric resin material containing reinforcing fibers, a strength element (39 and 38) surrounding the first liquid barrier, and including at least one layer of polymeric resin material containing an array of continuous high strength, high modulus fibers extending continuously around the motor component and a second

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liquid barrier (46 and 50) which is impervious to liquid surrounding the strength element and comprising at least one polymeric resin material containing reinforcing fibers (see fig. 2 and column 1-lines 48-65) since this allows greater tolerance of the rotor structure to stress cycling. Cox also discloses that the fiber is selected from a group consisting of glass, carbon polyester and more, further disclose that different layers may be wound in different configurations, for example in different helical senses (column 1 lines 49-65). Cox states that the fiber of each layer of fiber may be wound singly inherently providing a veil cloth or a collection of fibers within the composite, for example as tows.

Referring to claims 10, no patentable weight has been given to the method of manufacturing limitations (i. e. dry lay-up resin transfer molding, wet and pre-impregnated, and filament winding techniques) since "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify Smith's invention and make a composite rotor having a first barrier which is impervious to liquids comprising at least one layer of polymeric resin material containing reinforcing fibers, a strength element surrounding the first liquid barrier, and including at least one layer of polymeric resin material containing an

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array of continuous high strength, high modulus fibers extending continuously around the motor component and a second liquid barrier which is impervious to liquid surrounding the strength element and comprising at least one polymeric resin material containing reinforcing fibers rotor since this would had been desirable to allows greater tolerance of the rotor structure to stress cycling.

2. Claims 6-8 rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. 6,150,747 in view of Cox U.S. Patent No. 5,717,263 and in further view of Kohlhas et al. U.S. Patent No. 6,454,547.

Smith, as modified above, discloses the claimed invention except for the composite lamina arrangement has an exposed surface formed with a corrugation pattern to control the flow of liquid through the space between the rotor and the stator. However, Kohlhas disclose a rotor (4) with a corrugation pattern containing ridges (11) to control the flow of liquid through the space between the rotor (4) and the stator (6).

Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify Smith's invention and made a corrugation pattern between the stator and rotor since this would had been desirable for control the liquid flow.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yahveh Comas whose telephone number is (571) 272-2020. The examiner can normally be reached on 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YC


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